

## WHAT IS CLAIMED IS:

1. A burning and melting system of infection trash, the system comprising:

5 a trash feeding pipe to which the infectious trash is supplied;  
burners for burning infectious trash supplied through the trash feeding pipe by using Brown's gas, when the amount of the infectious trash reaches a predetermined level;

10 a melter for melting incineration residues and glasses discharged from the burners thereto by using the Brown's gas;

a post-combustion chamber for combusting toxic fumes produced from the burners and the melter by using the Brown's gas;

15 a gas analyzing line for analyzing the toxic fumes having been combusted in the post-combustion chamber and if the amount of toxic elements contained in the combusted fumes exceeds a standard level, for feeding the combusted fumes back into the burners; and

a gas outlet for discharging the combusted fumes to the outside if the amount of toxic elements contained therein is less than the standard level.

20 2. The system according to claim 1, wherein the burners are comprised of a rotating burner for burning the infectious trash by rotating the entire burner; and an auxiliary burner for burning the infectious trash again, the infectious trash having been already burned in the rotating burner.

25 3. The system according to claim 2, wherein the rotating burner comprises a transferring means being installed at an inside of the burner, for transferring only the infectious trash under a predetermined volume to the auxiliary burner, and the auxiliary burner comprises a discharging means being installed at a lower portion of the burner, for discharging only the incineration trash under a predetermined volume.

30 4. The system according to claim 2, wherein burned residues discharged from the auxiliary burner are fed to a melter through a screw conveyor.

35 5. The system according to claim 1, wherein the infectious trash fed to the trash feeding pipe does not go through a sterilizing and crushing process.

6. The system according to claim 1, further comprising:  
a gas feeling line for feeding off gas from the burners directly into the  
melter.

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7. The system according to claim 1, wherein the melter comprises an  
exit at a lower portion of the melter, for discharging a slag, the slag being  
formed of molten burned residues and glasses.

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8. The system according to claim 1, wherein the melter and the  
post-combustion chamber comprise at least one burner using Brown's gas  
being disposed on one side, respectively.

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9. The system according to claim 1, wherein the post-combustion  
chamber further comprises at least one bowl filled with glasses.

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